

customer service, and then imagine having to retrain them each time a single ILEC changes its proprietary systems.

36. The industry has now agreed on a standard interface for pre-ordering -- EDI TCP/IP SSL3.⁴ Final specifications for the transport protocol EDI/SSL3 Interactive Agent (IA) Specification (TCIF-LB-115) for both ordering and pre-ordering were released in April. TCIF balloting was completed in June. Final specifications for EDI 9.0 which includes the basic data elements for pre-ordering (other than CSRs which are expected to be part of EDI 10.0) were also completed in April. TCIF balloting for EDI 9.0, which includes functionality for address validation, feature/service availability, scheduling inquiry, scheduling reservation, telephone number reservation and canceling reservation was completed on July 28. No other pre-ordering transport protocol has received final industry approval; nor have specifications been completed by the industry for any other interface.

37. BellSouth is correct that the industry has not yet agreed on a Generic Implementation Guide ("GIG") for pre-ordering. Such a guide contains the general parameters that should be included in Joint Implementation Agreements to implement EDI TCP/IP for pre-ordering, such as the fact that such an agreement should designate the organizational hierarchy of people responsible for implementation, that it should include a process for responding to catastrophic failures of the interface, and that it should include milestone dates for implementation of the interface. But any BOC that desired to do so could easily begin implementation of EDI

4/ The ECIC Pre-Order Technology Task Group (POTTG) also recommended CORBA as an alternative pre-ordering interface. And, to MCI's knowledge, BellSouth has been working since December, 1997 to develop a CORBA interface. However, the industry has not yet agreed on specifications for CORBA. In any case, BellSouth has yet to deploy a CORBA interface.

TCP/IP for pre-ordering without an industry approved GIG. The BOC could simply use the industry standard GIG for ordering, which is almost certain to be very similar to the final GIG for pre-ordering, as a basis on which to begin implementation.

38. Although the industry approved EDI TCP/IP as an interim interface in February 1997, BellSouth refused to discuss development of this interface with MCI until final specifications for that interface were released. Despite three requests from MCI to BellSouth, and a request from Louisiana Commissioner Dixon at the August 13, 1997 OSS demonstration that BellSouth respond expeditiously, BellSouth for months did not even respond to MCI's requests to discuss development of EDI TCP/IP. (Letters from me to BellSouth, Aug. 5, 22, 1997, attached to my declaration as att. 1). Indeed, only on September 16, 1997 did BellSouth respond and in that response it stated that it would not begin discussions regarding EDI TCP/IP until publication of the technical guidelines for EDI TCP/IP by ECIC. (Letter from Cliff Bowers, Sept. 16, 1997, att. 2). Those technical guidelines have now been released, and yet BellSouth has still not agreed to begin developing EDI TCP/IP with MCI.

2. LENS Is Not a Machine-to-Machine Interface

39. In addition to being proprietary, LENS is deficient because it is a dedicated access system that essentially involves the provision of (an inferior version of) BellSouth's own OSS terminals (or screens) to MCI. As this Commission has recognized (S.Car. Order ¶¶ 156-57), because LENS does not connect CLEC systems to BellSouth systems, it requires MCI customer service representatives to first use BellSouth systems and then use MCI's own internal system. In contrast, a BellSouth representative only has to use BellSouth's own internal systems. For

example, in taking a customer's order to install new service, an MCI customer service representative must enter the customer's address into LENS, validate the address, obtain a phone number from LENS, and then when placing an order through EDI, must retype the phone number and address into MCI's ordering systems (which flow through into EDI). If the address typed on the EDI order does not match exactly the address validated in LENS, the order is likely to be rejected (e.g., the order cannot say 19th St. instead of 19th Street). A BellSouth service representative, in contrast, can simply enter the customer's address at the pre-ordering stage and the validated address and assigned phone number will automatically populate the order without the need for any retyping.

40. The dual data entry required of CLECs not only creates delay while the customer waits on the line, it also inevitably results in order entry errors that impact customers' requested services. (S.Car. Order ¶ 157). As this Commission has explained (S.Car. Order ¶ 165), BellSouth's proposed solution of "cutting and pasting" information from LENS into the CLEC's systems may reduce errors but it actually significantly increases delay; cutting and pasting on a field by field basis (e.g. cutting the street, then the city, then the zip code) is a cumbersome and arduous process.

41. The lack of a machine-to-machine interface also forces CLECs to rely on the pre-ordering screens developed in LENS. (S.Car. Order ¶ 158). With a machine-to-machine interface, CLECs could take the underlying data and present it to their customer service representatives the way they wanted to without being constrained by the proprietary characteristics of the interface. This would free CLECs from the strictures of BellSouth's design and allow CLECs to compete to design superior systems specifically to meet their own needs.

This is particularly important for national CLECs such as MCI who desire to present pre-ordering information to their customer service representatives in a uniform fashion no matter the region.

With a machine-to-machine interface, for example, MCI can design its screens to provide a common name for a feature across regions, rather than having feature names vary from region to region depending on the name given by the BOC.

42. This Commission rejected BellSouth's South Carolina § 271 application in part because BellSouth lacked a machine-to-machine pre-ordering interface. The FCC found that, as I have already explained above, the lack of a machine-to-machine interface led to delay and increased risk of error as a result of the need for manual entry of data and also prevented a CLEC from developing its own customized interface to use on a national basis. (S.Car. Order ¶¶ 156-158). Indeed, even other BOCs have recognized the need of large CLECs for machine-to-machine interfaces. Ameritech's OSS expert Joseph Rogers, in discussing Ameritech's own Graphic User Interface for maintenance and repair, acknowledged that "[it] is not an interface as such, however, and it cannot be integrated with the CLEC's other information systems. Thus, we expect that it will be useful primarily to small carriers with less fully developed information systems." (Affidavit of Joseph Rogers, Application of Ameritech Michigan, CC Docket 97-298, ¶ 92). Like Ameritech's GUI, BellSouth's LENS is not an interface as such and is completely inadequate to serve the needs of large CLECs such as MCI.

3. CGI Is Not a Machine-to-Machine Interface

43. BellSouth asserts that CLECs can simply use technology such as "Common Gateway Interface" or CGI to interconnect LENS with CLECs' backend systems. In the South

Carolina Order, this Commission determined that BellSouth had not provided necessary specifications to use CGI. In December 1997, BellSouth finally provided updated specifications. However, CGI is not an adequate solution to the lack of a machine-to-machine interface.

44. Most fundamentally, the CGI process is too slow and cumbersome to use while a customer is on the line. As this Commission found about screen scraping, CGI requires CLECs to proceed through each of the LENS presentation screens one by one thus resulting in a slower less efficient process than that available to BellSouth's retail operation. (S.Car. Order ¶ 162). A CGI application enters BellSouth's backend systems and acts as if it is a human using LENS. It provides answers to each of the queries posed on the separate LENS screens⁵ and informs the LENS application that it is looking for field one = name; field two = address etc. Indeed, the company BellSouth hired to develop a model CGI application explains that separate calls are made to the CGI server to perform each pre-order function. (Stacy OSS Aff., ex. 19, p. 5). BellSouth then provides information back in a data stream. (Stacy, Tn. test., p. 92, att. 3) But, in addition to the answers to the various pre-order inquiries (i.e., CSR, telephone number reserved etc.), the message format includes all of the data needed to present these answers on a LENS screen. A CLEC that wishes to use different screens must strip this extraneous data out of the application, walk through the remaining data screen by screen, and then use it to populate its own screens. This process is too slow and cumbersome to be usable at the pre-order stage while the customer is on the line.

^{5/} The need to answer each LENS query presents another problem as well. In order to make CGI at all efficient, a CLEC will provide answers to all of the queries in one message. If a CSR is not returned correctly or the message is rejected, the CLEC will not know which of the pieces of information it included in the message request caused the problem.

45. Thus, although this Commission appeared to distinguish CGI from screen scraping, S.Car. Order, ¶ 163, and BellSouth has, on occasion, cited some technical distinctions between CGI and some forms of screen scraping, the version of CGI developed by BellSouth is, as Mr. Stacy recently acknowledged, much closer to the screen scraping described in the FCC's South Carolina order than to the version of CGI described in that order. (Stacy, Tn. test., p.35, 92-96, att. 3). Indeed, CGI is simply one form of screen scraping. And Mr. Stacy recently agreed, stating that the manner in which a CLEC obtains information is "the same in both the browser mode of LENS and the CGI mode of LENS." (Stacy, Tn. test., p.93, att. 3). The Georgia Commission therefore concluded that, a "BellSouth's LENS - CGI specifications requires the use of an underlying Hypertext Markup Language ('HTML') presentation as part of the data delivery mechanisms, and forces CLECs into a slower, less efficient integration than is available to BellSouth for its comparable retail operations." (Ga. OSS Order, p. 9, att. 4). In contrast, a machine-to-machine interface would grab the data directly with no need to work through BellSouth's screens.

46. Use of CGI is also expensive -- requiring development of front end software and modifications to CLECs' internal OSS. (Ga. OSS Order p. 9, att. 4). Indeed, Albion, the company that BellSouth hired to demonstrate the ease with which CGI could ostensibly be developed, spent over \$120,000 and 9 weeks in order to complete the project. (Stacy OSS Aff., ex. 19 p.1). And this was only to develop the CGI capabilities needed for a single type of order -- resale, new installation, residential. (Stacy OSS Aff., ex. 19, p. 1). Since much additional development would be needed to include all pre-order and ordering activities for residential and business, the full cost is still unknown.

47. Even more important, unlike a machine-to-machine interface which operates largely independent of the backend systems, substantial new development costs would accrue each time that BellSouth changed its backend systems or the LENS screens themselves, because this would change the way in which CGI needs to execute process steps to obtain data. (Ga. OSS Order p.9, att. 4). And all of these costs would be accrued simply for pre-ordering with BellSouth! -- none would help make pre-ordering more functional with other ILECs, since no other ILEC uses LENS.

48. In contrast, a true machine-to-machine interface provides direct database access. It would enable CLECs to develop simple requests (e.g., get CSR). There would be no need to “walk through” LENS screens. The information would be returned as a message rather than a data stream, and there would be no extraneous information relating to video presentation that the CLEC has to strip out. Changes to LENS presentation screens or underlying databases would not result in any need to change the machine-to-machine interface unless they impacted the exact fields being used. Moreover, if the interface were an industry standard interface, then even the provision of additional pre-ordering functionality often would not result in the need to change the interface (except when the industry entirely changed to a new version of the interface). Even before BellSouth began providing data pertaining to the new functionality, the functionality would already have been completely mapped.

49. Although CGI is deficient as a long term solution to provide all pre-ordering functionality, MCI continues to desire to use CGI as an interim solution in a more limited role. MCI has attempted to use the specifications to develop the capability to scrape CSR information from BellSouth’s systems into MCI’s systems without the need for manual intervention.

However, MCI has been unable to do so successfully. The CSR information transmitted through CGI consists of a continuous string of characters with no indication as to how it is to be fully "parsed" so it can be presented on a computer screen in cognizable pieces to a customer service representative or loaded effectively into a database. After significant effort based on trial and error, MCI has been able to parse some of the data into blocks of information which it can present on screen to its customer service representatives. This enables MCI to conduct a CSR inquiry using an MCI-designed screen. However, MCI's ad hoc method of parsing wastes MCI's database space and leaves open the possibility of errors. More important, MCI has not succeeded in parsing the CSR information into individual data fields (e.g., street number, street name, directional, zip, state) so that it can then take the CSR information retrieved at the pre-ordering stage, such as a customer's address, and use it to populate an order. Inconsistencies in BellSouth's formatting of the CSR make it especially difficult to parse the information. Even with CGI, therefore, the customer service representative must retype the CSR information into an order thus wasting time and creating the possibility of error.

50. Despite MCI's repeated requests, BellSouth has not provided either a data dictionary or a CSR record layout (schema) defining the data elements, describing the field length and providing other information needed to parse the data. For example, there is no information stating that a "street type" will be X characters in length with blvd. standing for boulevard etc. Although BellSouth claims that it has provided a data dictionary, this is misleading; BellSouth has provided a data dictionary for CGI generally but not for the CSR. Similarly, BellSouth's claim that the CGI specifications themselves contain the information typically found in a CSR record layout or data dictionary is only partially right; they do contain some of the information needed to

parse the CSR into big blocks of information, but they are missing the information needed to parse the CSR on a field-by-field basis. As the Georgia Commission concluded after considering competing testimony regarding CGI, “the LENS – CGI specification does not have all of the required information to enable a CLEC to perform the necessary development effort for integration.” (Ga. OSS Order p.9, att. 4).

51. BellSouth contends that CGI can be used to successfully integrate pre-ordering and ordering functionality, and it points to the development efforts of Albion to demonstrate this point. However, Albion does not assert anywhere that the CGI application it developed functioned rapidly and efficiently in a manner that could be used effectively while a customer was on the line; Albion only developed CGI to process a single type of order; and Albion’s development efforts were almost certainly aided substantially by resources unavailable to CLECs. This can be seen by examining the list of assigned BellSouth contacts dedicated to working with Albion. (Stacy OSS Aff., ex. 19, p.36). Among the five separate contacts, are the BellSouth developers of CGI -- a level of support that it is highly unlikely BellSouth would provide to a CLEC. Most important, Albion does not claim to have developed the ability to parse a CSR at a level of granularity sufficient to enable a CLEC to use pre-ordering information to populate an order. All that Albion states is that it parsed the CSR information and displayed it in four separate areas – Directory Listing, Directory Delivery, Billing Information, and Services, Equipment, Remarks. (Stacy OSS Aff., ex. 19, p. 8).

52. In fact, it is clear that Albion cannot parse CSRs in a detailed enough fashion to enable it to populate an order. After Mr. Stacy testified at a deposition in Florida that Albion had release rights to the “code which is the technical specifications,” MCI called Albion to determine

if Albion could assist MCI in parsing the CSRs. (Stacy, Fla. Deposition, July 22, 1998, pp. 58-59, att. 5). Albion informed MCI that there were no technical specifications, and that a lot of the information it had received from BellSouth concerning CGI was unclear and a lot was left out. Albion also stated that although it had managed to parse the CSR into large blocks of information for the three or four phone numbers it used as test cases, it had not managed to do so in the level of detail needed to enter into a database, there was a potential for the CSR not to parse right, and it could not be sure that even the minimal parsing it had achieved could be achieved in other cases. Albion added that field-by-field parsing (needed to enable pre-ordering information to be populated in orders without retyping) was practically impossible and that while Albion had wanted to attempt it, BellSouth's own people had given up trying to do so. This was in part because CSRs are entered by different people at BellSouth who use different abbreviations. Albion explained that in order to perform field-by-field parsing, a CLEC would need direct access into BellSouth's databases, not access via HTML. Thus, Albion's experience with CGI was entirely consistent with MCI's and, indeed, confirmed MCI's conclusions regarding CGI.

53. Indeed, if BellSouth were truly interested in enabling a CLEC to use CGI, it would not have spent \$120,000 on the Albion project. Instead, it would have provided MCI the the information it needed to parse the CSR. If Albion could use the information provided by BellSouth to develop this capability, as BellSouth implies, then surely BellSouth could have provided sufficient technical expertise to aid MCI to achieve the result it could not achieve on its

own. Then BellSouth could rely on a CLEC's actual successful use of CGI, rather than on a BellSouth hired third-party, to show the operational readiness of CGI.⁶

4. EC-Lite Has Serious Deficiencies

54. In addition to its discussion of CGI, BellSouth asserts that it has made available a machine-to-machine pre-ordering interface -- EC-Lite. But EC-Lite is based on technology that was roundly rejected by the industry when it initially evaluated which interface should be chosen for pre-ordering, and it is too costly.

55. In April, 1996, the OBF agreed upon EDI as the data format for ordering. In November and December of that year, the industry discussed the appropriate transport protocol for ordering. AT&T proposed EC-Lite which it had developed. EC-Lite uses CMIP protocol (used by the industry for its electronic bonding maintenance and repair interface for long distance service), but it decouples the business processes in that protocol from the data. It strips away the data identification from the data elements and requires the development of new identifiers for each data element. AT&T had developed the data template in a proprietary way. As a result, if the industry had chosen the EC-Lite interface, it would either have had to rely on the data template created by AT&T, presumably with AT&T's business processes in mind, and about which AT&T would have had unique expertise, or, because AT&T had stripped out all of the data identifiers from CMIP, the industry would have had to go back and create new data identifiers. In addition,

^{6/} BellSouth's claim that it believes one CLEC is using CGI is unsupported by any data showing its successful use. Certainly, there is no evidence suggesting any CLEC is using CGI to parse CSRs and use the information to populate orders.

AT&T was the only vendor providing support for EC-Lite, and EC-Lite was limited to UNIX based systems designed for and by AT&T.

56. EC-Lite also would have been very expensive to develop and maintain, and it would have taken a long time to develop. The companies using EC-Lite would also have had to have created EC-Lite gateways which are also very expensive. And they would have had to rely on only a few vendors which would have also increased costs. Indeed, when EC-Lite was being proposed as a standard, MCI estimated that it would cost ten times as much to develop and deploy an EC-Lite interface as an EDI interface.

57. The discussion notes from the ECIC meeting on November 22-26, 1996 reflect these disadvantages. Among the disadvantages discussed related to EC-Lite are the fact that the "tool sets" are expensive, that there are high maintenance costs, and that there is a long learning curve. (ECIC meeting notes, Nov. 22-26, 1996, att. 6). It was apparent in November that EC-Lite had little support.

58. On March 6-7, 1997, ECIC's Electronic Bonding Alternatives Task Force voted on the ordering interface. EC-Lite came in third, behind EDI/TCP/IP/SSL3 and CORBA, with approximately half as many votes as EDI/TCP/IP/SSL3. On March 17, 1997, ECIC recommended utilizing EDI TCP/IP SSL3 for the ordering interface and that ECIC should create EDI formats for pre-order functions. It also recommended creating a task force to evaluate CORBA for potential future use. In addition to ECIC, other industry bodies considering use of EC-Lite, such as the T1M1 committee also rejected EC-Lite.

59. By the Fall of 1996, therefore, and certainly by the Spring of 1997, it was readily apparent to BellSouth that the industry was not going to move towards EC-Lite. Once EC-Lite

had been ruled out for ordering, there was almost no chance it was going to be chosen for pre-ordering.

60. Indeed, on October 6, 1997, when ECIC/POTTG made a recommendation of either EDI TCP/IP/SSL3 or CORBA as pre-ordering alternatives, EC-Lite was not even on the agenda. No company, including BellSouth, spoke in favor of EC-Lite. This was because EC-Lite had the same disadvantages for pre-ordering as for ordering. Moreover, once EDI had been chosen for ordering and the data elements defined for ordering, it made sense to choose a pre-ordering interface that could rely on those same data elements. It did not make sense to choose EC-Lite which would have required defining an entirely new set of data elements.

61. Thus, BellSouth has long known that EC-Lite would not become the industry standard pre-ordering interface. It has long understood the disadvantages of EC-Lite. Nonetheless, rather than beginning to develop an interface based upon EDI, BellSouth proceeded to develop EC-Lite with AT&T. It did so without consulting any other CLECs as to their desires regarding a pre-ordering interface.

62. As a result, BellSouth has put into place an interface that is non-standard and that was not even based on an emerging industry standard. Indeed, the non-standard nature of EC-Lite is its most fundamental deficiency. At a time when the industry has reached agreement on a pre-ordering interface, MCI cannot be expected to expend valuable resources developing an interface that it could use only in the BellSouth region and that would be of use only until BellSouth agrees to develop an industry standard solution -- especially a non-standard interface that would be very costly and time consuming to develop. As the Georgia Commission explained, "it is not clear that EC-Lite is practically available to CLECs other than AT&T. EC-Lite is a

proprietary interface developed by BellSouth for AT&T, has not been adopted as the potential industry standard in the Electronic Communications Interface Committee ('ECIC') and it appears that other CLECs do not intend to use that interface." (Ga. OSS Order, p. 11 n.31, att. 4).

BellSouth made the decision to develop this non-standard interface even though it knew that it had no chance of becoming the standard. BellSouth should not be able to rely on it to gain entry into long distance.

63. Having discussed the general difficulties with LENS as a pre-ordering system, I would now like to discuss some discriminatory aspects of LENS with respect to particular pre-order functions. These functional deficiencies also apply to CGI.

5) Address Validation

64. Perhaps the most important pre-order function is address validation. Prior to placing an order a CLEC must validate the customer's address against the RBOC's database to ensure that the address is entered in the exact format present in the RBOC's systems. Even slight differences, such as entering 19th Street instead of 19th St. can result in rejection of an order.

65. At this time, street address validation can best be performed if a BOC provides downloads of its files to the CLECs. This is especially true in the absence of a machine-to-machine pre-ordering interface. Information on customer street addresses does not need to be up to the minute.⁷ Regular downloads would suffice and could be integrated into a CLEC's systems.

^{7/} BellSouth's claim that "MCI's contention regarding the RSAG database casts doubt on the veracity of its claims about the criticality of electronic interfaces" is disingenuous. (Stacy OSS Aff. ¶ 70). As BellSouth is well aware, MCI has long distinguished between functions that are extremely time sensitive and those that are not. Indeed, BellSouth has long provided MCI with downloads of information on feature availability and PIC availability. This does not at all "cast[]

Indeed, they have some significant advantages over obtaining the information on a transaction by transaction basis from the BOC. Downloads of the RSAG would allow MCI to electronically enter the information into its own system to be available to customer service representatives. That way MCI representatives would not have to use the BOC system and then re-enter the data manually into the MCI system. The customer service representatives could simply use the MCI system to validate addresses and thus substantially reduce the risk of rejected orders.

66. BellSouth could provide downloads of the Regional Street Address Guide (RSAG) on a regular basis through an electronic download; indeed it is contractually obligated to do so. (Letter from Walter Schmidt, Aug. 18, 1997, att. 7). For many months, BellSouth refused to provide a download of the RSAG. Eventually, BellSouth ostensibly relented, but did so in theory only, agreeing to provide downloads of the RSAG to MCI but only if MCI paid exorbitant prices for these downloads, something MCI was not required to do in its contract. The Georgia Commission has ordered BellSouth to provide such downloads. But BellSouth has not yet done so and has not even met with MCI to discuss doing so. (Ga. OSS order, App. A p. 1, att. 4). Contrary to BellSouth's contention, MCI does believe that provision of the RSAG, which is technically feasible, contractually required, and best provides parity in address validation is required by the Act. (Stacy OSS Aff. ¶ 70).

6) CSRs

67. BellSouth has made a decision not to provide all of the information in CSRs through LENS. As a result of BellSouth's business decision, LENS does not provide access to CSRs at parity. LENS only provides CLECs access to a subset of the information available to a

doubt" on the need for an electronic pre-ordering interface for other functions.

BellSouth customer service representative who accesses a CSR. For example, LENS does not provide CLECs with access to a customer's payment history, (Stacy, Tn. test., pp. 199-200, att. 3), information MCI needs in order to determine the size of the deposit a customer must make to order phone service -- information that MCI should be able to quote the customer over the phone. BellSouth also does not provide CLECs access to rate information. Although this is information that is in the CSR, that BellSouth formerly provided to CLECs, and that is required to be provided by the MCI/BellSouth Interconnection Agreement (Stacy, Tn. test., pp. 30, 198-200, att. 3), BellSouth decided to eliminate this information from the CSR before providing it to CLECs. The Georgia Commission has determined that this is discriminatory and has ordered BellSouth to again begin providing it. (Ga. OSS Order, p. 10, att. 4). BellSouth's decision to label rate information as "proprietary marketing information," Stacy OSS Aff. ¶ 71, in no way alleviates its duty to provide this information. Finally, BellSouth, as of the time of its filing, omitted the local service itemization and USOC summary from the CSR. These provide useful summary information on a customer's current services and are available to BellSouth customer service representatives. (Stacy, Tn. test., Tn. test., pp. 58-59, att. 3).

68. The list of CSR information to which LENS does not provide access is a long one extending well beyond the examples provided above.⁸ BellSouth claims that CLECs do not need the additional information. But CLECs may be able to use this information to design new services BellSouth has not even thought of. It is not for BellSouth to decide that CLECs do not need

^{8/} I have attached a list of CSR information with letters marked next to the items showing N for what BellSouth thought was necessary for CLECs, U for what BellSouth decided was unnecessary, and P for what BellSouth claimed was proprietary. I have also attached a BellSouth letter that includes a BellSouth list of CSR information not provided to CLECs. They are both part of Attachment 8.

information to which BellSouth itself has access. One of the major potential benefits of competition is the possibility of innovation in services offered.

69. In addition to differences in the information provided, CLECs' access to CSRs is inferior to BellSouth's because CLECs only have electronic access to a maximum of 54 pages in each section of a CSR. When a section of the CSR exceeds 54 pages, the CLEC must request that BellSouth fax it the additional information. In contrast, a BellSouth service representative can simply print out the additional information. (Stacy Test., Tenn. Hrngs., IV. D. at 197-98).

7) Telephone Number Reservation

70. Another important pre-order function is the ability to reserve a telephone number or multiple numbers for a customer. LENS only allows a customer service representative to reserve a maximum of six telephone numbers for a customer at one time. If more are needed, the representative must return to the inquiry menu and select the number reservation function again and again, a process that makes number reservation much more cumbersome. Thus, a CLEC that wants to reserve 25 numbers for a business customer must use the number reservation function five times, a process that becomes even more cumbersome if the CLEC wants the numbers in sequence. In contrast, as the Georgia Commission explained, BellSouth is able to reserve 25 telephone numbers at one time electronically. (Ga. OSS Order, p. 11, att. 4). The Georgia Commission therefore required BellSouth to remove the six number limitation in its proposed future pre-ordering interface -- API. As of now, however, this limitation remains in place.⁹

^{9/} BellSouth's claim that this limitation does not apply in EC-Lite is irrelevant given the general deficiencies with that interface.

71. In order to reserve a telephone number through LENS, a CLEC customer service representative must enter the number reservation function and go through the process set forth therein. In contrast, a BellSouth customer service representative using RNS automatically sees an “assigned” telephone number which he/she can offer to the customer; only if the customer does not want this number does the BellSouth representative have to use the number reservation function. (Calhoun, N.Car. trans., p. 60, att. 9; Stacy, Tn. trans., pp. 207-08, att. 3). BellSouth essentially acknowledges that this is so for LENS, merely stating that it is not so for EC-Lite and need not be so for CGI. (Stacy OSS Aff., ¶ 40). But EC-Lite is a proprietary interface of little use to MCI, and CGI is an inferior, pre-ordering solution for which inadequate information has been provided.

72. In offering customers a choice of numbers, a CLEC has no way of viewing the NXX codes available to the customers; in contrast, a BellSouth representative using RNS can easily view such codes. (Calhoun, Fla. trans., 1283, 1447-48, att. 10; Calhoun, N.Car. trans., p. 59, att. 9). The Georgia Commission ordered BellSouth to eliminate this disparity when it introduces its API interface which it has not yet done. (Ga. OSS Order, App. A, p. 3, att. 4).

73. BellSouth contends that CLECs do have “comparable access” to NXX codes, because the “codes associated with each central office are found in the Local Exchange Routing Guide.” (Stacy OSS Aff., ¶ 39). But access in the LERG is not “comparable” to provision of information on a customer service representative’s screen. Using NXX codes downloaded from the LERG presents a cumbersome process for CLECs that are using LENS to reserve telephone numbers. Moreover, it is BellSouth’s obligation to provide functionality that is available to itself.

8) Due Date Assignment

74. Another important pre-ordering function is due date reservation. This function enables a customer service representative to tell the customer when he can expect his service to be turned up. This Commission has noted two issues with respect to BellSouth's provision of due date information to CLECs. Both continue to be a problem.

75. The first issue noted by the Commission, and one that formed part of the basis for this Commission's rejection of BellSouth's South Carolina application, is the disparity between BellSouth and CLECs in their ability to provide accurate due dates to their customers. (S. Car. Order, ¶ 168). Because BellSouth orders proceed directly to BellSouth's backend systems and receive a firm due date when they reach BellSouth's Service Order Control System ("SOCS"), a due date available at the pre-order stage is almost certain to still be available when the due date is assigned. This is not true for CLECs -- EDI is a batch process which slows the processing of orders,¹⁰ a higher percentage of CLEC orders than BellSouth orders fall out for manual intervention further slowing processing, and CLECs are not informed of a due date until they receive a FOC (a process that almost certainly continues to take longer for CLECs than it takes for BellSouth orders to proceed to SOCS). All of these factors continue to mean that "a new entrant using LENS for pre-ordering and EDI for ordering cannot provide its customers a due

^{10/} In a batch process, orders are aggregated and transmitted at designated time intervals. In BellSouth's EDI process, for example, orders are sent from MCI every 15 minutes; the orders then spend a period of time in the Value Added Network before being transmitted to BellSouth where they are read every 15 minutes. In an event-driven process, in contrast, orders are transmitted as soon as they are entered. The industry has recently agreed on an event-driven transport protocol for EDI. MCI has asked BellSouth to begin using this protocol. BellSouth is considering this request but has not yet agreed.

date during the original customer contact with the same level of confidence and accuracy as BellSouth's retail representatives can during an initial customer contact." (S.Car. Order ¶ 169).

76. This Commission also recognized a second area of "apparent lack of parity" in the provision of due date information, although it did not rely on this lack of parity as the basis of its decision. (S.Car. Order ¶ 172). For BellSouth's own customer service representatives, BellSouth's Direct Order Entry Support Applications Program (DSAP) calculates due dates based on the availability of BellSouth's work force, the type and size of a customer's order and other factors. (S.Car. Order, ¶ 171). The customer service representative can then quote that due date over the phone to the customer.

77. In contrast, LENS has no method of calculating due dates for unbundled network element (UNE) orders. None of the due date information in LENS applies to UNEs.

78. LENS is better, but not that much better, with respect to resale.¹¹ MCI and all of the other CLECs who use EDI for ordering have access to LENS' own due date function for pre-ordering (provided in the inquiry rather than the firm order mode of LENS). In order to use this function, however, a CLEC customer service representative must rely on a cumbersome presentation screen to manually calculate a due date after taking into account several separate

^{11/} In the past, BellSouth has indicated that the same DSAP program used by BellSouth representatives is available for use by CLECs. As this Commission understood, however, this is only true if CLECs are using LENS for ordering as well as pre-ordering. (S.Car. Order ¶ 172). , BellSouth has asserted that CLECs can gain access to DSAP even if they do not use LENS for ordering. It claims that CLECs can use LENS in the firm order mode but not actually place an order. But if MCI were to use LENS in the firm order mode, it would have to go through each pre-ordering step and each ordering step even if it only wanted to use some pre-ordering steps -- a process that is too time consuming to be practicable. MCI desires to use BellSouth's EDI interface, rather than its LENS interface for ordering, because EDI is the industry standard and is far superior to LENS. Indeed, BellSouth itself has explained that EDI is the recommended ordering interface. As a result, MCI will not have access to DSAP to calculate due dates.

pieces of information -- typical installation intervals, normal working days, and days the particular end office may be closed. In contrast, on the screen presented to a BellSouth customer service representative in RNS, the first available due date is automatically calculated and highlighted in green.

79. BellSouth implies that it cannot provide a due date calculator in the pre-ordering mode of LENS, because such a calculator cannot function unless the CLEC representative goes through the entire process of pre-ordering and ordering. (Stacy OSS Aff. ¶ 41). But BellSouth simultaneously suggests that CLECs can build their own calculator based solely on the information provided on the installation calendar of LENS -- information that does not require the CLEC to first "build" an entire order. (Stacy OSS Aff. ¶ 62). Thus, BellSouth implicitly acknowledges that it could, but has chosen not to, add a due date calculator to the pre-ordering mode of LENS.

80. As for BellSouth's claim that CLECs could build their own due date calculator, this assumes that the CLEC is using CGI which is not viable for the reasons I have already discussed. If the CLEC is using LENS, the CLEC cannot incorporate a due date calculator into the pre-ordering functions.

81. This Commission has expressed concern about the disparity between BellSouth and CLECs with respect to due date calculation but indicated its desire for further evidence of its impact on CLECs. (S.Car. Order ¶ 172). Unfortunately, providing hard evidence of the impact is difficult. Certainly, the disparity makes LENS more difficult to use for CLECs than RNS is for BellSouth, and, especially when combined with other deficiencies of LENS, has a substantial competitive impact. BellSouth should be required to provide this calculator, which it has already

developed for itself, to CLECs. Indeed, the Georgia Commission has ordered BellSouth to provide a full due date calculation capability in the pre-ordering mode of LENS, but BellSouth has not yet done so. (Ga. OSS Order, App. A, p.4, att. 4).

9) Feature Availability and FIDs

82. Feature availability enables CLECs to ensure that a feature requested by the customer is available at the end office serving the customer's address. BellSouth is providing MCI with downloads of feature availability information -- which enables MCI to avoid most of the problems with use of LENS to access feature availability by enabling MCI to make a feature availability function part of MCI's own systems. Recently, BellSouth has also enabled MCI to download from its web site the Universal Service Order Codes (USOCs) by which the particular features are ordered. Until recently, MCI could not download the USOCs, because BellSouth did not provide these codes in a format that could be parsed. Unfortunately, however, while BellSouth changed the format for the USOCs, it did not change the format for the field identifiers (FIDs) or for state validity of USOCs. FIDs essentially give USOCs a level of granularity. For example, an order for voice mail service must include a FID containing a call forwarding number. Because MCI cannot download this information, MCI must use a paper version of the Local Exchange Ordering Guide to determine the FIDs; it cannot integrate the FID information into its OSS. Similarly, MCI cannot download from the web and integrate the information on whether a USOC is valid in a particular state. BellSouth could easily make it possible to download this information as it did with USOCs, but it has chosen not to do so.

10) PIC Availability

83. LENS's provision of information on the interexchange carriers available to a customer is also discriminatory. If a customer requests a particular interexchange carrier, a CLEC customer service representative must page through a non-alphabetical list of the many interexchange carriers, a list that is approximately thirty pages long, to determine if the requested carrier is available and to determine the ordering code for that carrier. (Calhoun, Fla. trans., pp. 1288-92, att. 10; Stacy, Tn. trans. pp. 133-36, 225-26, att. 3). In contrast, a BellSouth customer service representative using RNS can simply type the name of the requested carrier and, if that carrier is available to the customer, the ordering code will appear automatically. (Calhoun, Fla. trans., p. 1293, att. 10). The Georgia Commission determined this unequal capability to be unacceptable and ordered BellSouth to fix it. (Ga. OSS Order, App. A, p. 2, att. 4). This Commission has also expressed its concern. (S.Car. Order, ¶ 174). Nonetheless, BellSouth has yet to fix this problem. (Stacy OSS Aff., ¶ 46).

84. However, unlike with most other pre-order functions, MCI, at least, has arranged to avoid the difficulties of using LENS to access PIC information. BellSouth provides MCI with downloads of PIC availability that MCI can integrate into its own systems.

11) Other Functions

85. In addition, BellSouth's own pre-ordering information includes several functions that it does not provide to CLECs at all. A CLEC cannot use LENS to access information as to whether a particular address is located within a county or municipality for purposes of determining whether the customer will be subject to local taxes. MCI believes that BellSouth's

systems not only provide access to this information, but also use it to automatically populate the order form.

86. A BellSouth customer service representative can see which promotions BellSouth is currently offering. But a CLEC customer service representative cannot use LENS to check which promotions are available. (Stacy, Tn test., p. 215, att. 3). This is so even though MCI, at least, has a contractual right to resell promotions in many circumstances.

87. There are three pre-order functions being addressed by the OBF to which BellSouth provides no access at all. These are: (1) block of direct inward dial (DID) numbers inquiry; (2) DID trunk inquiry; and (3) unbundled network element service provider inquiry. These missing functionalities are important. The first two functions enable CLECs to perform pre-ordering functions related to DID. Many business customers have DID and CLECs must be able to reserve blocks of phone numbers for these customers and determine whether facilities (DID trunks) are available just as they can for ordinary customers. BellSouth's claim that DID numbers are contained in ATLAS which is accessed by LENS is misleading. As Mr. Stacy acknowledged in Tennessee, although DID numbers are contained in ATLAS, "[b]locks of DID numbers cannot be obtained and reserved through LENS." (Stacy, Tn. test., p. 211, att. 3). Also, "LENS does not permit you to access DID numbers and trunks." (Stacy, Tn. test., p. 211, att. 3). The Georgia Commission ordered BellSouth to make blocks of ten DID numbers available electronically, but BellSouth has not yet done so. (Ga. OSS Order, App. A, p.2, att. 4).

88. The third function, the unbundled network element service provider inquiry, is essential in an environment in which multiple service providers might be providing different pieces of a single customer's service -- where, say, carrier A furnishes the loop, carrier B furnishes the

switching capability, and carrier C furnishes directory assistance services. BellSouth's assertion that such a scenario does not exist today, Stacy OSS Aff. ¶ 74, ignores the fact that such a scenario is likely to be relatively common as competition develops. CLECs must have the tools to compete in such an environment. By overlooking this functionality, BellSouth's pre-order OSS fails to present all information that a CLEC requires at the pre-ordering stage in order to convert an existing customer's services through an unbundling situation involving another CLEC. Thus, only BellSouth has visibility into the existing unbundled network architecture for a customer that converts between CLECs. This is discriminatory.

12) BellSouth Lacks an Automated Pre-ordering System for Complex Services

89. For customers with complex services such as Centrex or ISDN, BellSouth lacks an automated pre-ordering system altogether. This is so whether the CLEC plans to serve these customers by resale or through the use of UNEs. In particular, there is no automated way for a CLEC to perform a service inquiry to determine whether there are facilities available to serve the customer such as outside plant and whether digital loops have already been conditioned. This information is needed to be able to give a potential customer a reasonable idea of how long it would take to provide the service the customer desires. The information might also affect the price to the customer, because the customer might be responsible for special construction charges if new facilities need to be built.

90. Because BellSouth lacks an automated process, a CLEC that is performing a service inquiry must call a BellSouth account team which in turn calls a different group in